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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/682,064	07/16/2001	Lino Iglesias	38146	1264
29569	7590	11/07/2003	EXAMINER	
JEFFREY FURR 253 N. MAIN STREET JOHNSTOWN, OH 43031			ROCHE, TRENTON J	
			ART UNIT	PAPER NUMBER
			2124	

DATE MAILED: 11/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/682,064	Applicant(s) IGLESIAS, LINO	
	Examiner Trent J Roche	Art Unit 2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-27 have been examined.

Drawings

2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: Fig. 5, and Fig. 5 items 15 and 16. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
4. The drawings are objected to because Fig. 5, item 14 is labeled as "Built In Interface OF-ON" while it is described in the specification as "Extended Interface OM-OF". A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
5. The drawings are objected to because Fig. 3, item 12 is labeled as "Knoledge Base" which is described in the specification as "Knowledge Base". A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
6. The drawings are objected to because there are two drawings which are labeled "Fig. 3". A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

7. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract exceeds the maximum length of 150 words.

8. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with grammatically incorrect terminology. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph.

Examples of such instances are: "into an easier way of develop and design software,"

"encapsulation, polymorphism, abstraction y inheritance," "Each objects is instantiated..." and "or buy this software to third party developers and put it into the system with any problem." on pages 1 and 2 of the specification. As these only examples of such errors, a throughout revision of the specification is needed. Appropriate correction is required.

Claim Objections

9. Claims 1-27 are objected to because of the following informalities: The formatting of the claims makes it appear that various claims are missing, for example, the listing of claims goes from 2

to 6, because claims 3, 4 and 5 are in the same paragraph as claim 2. Please revise such that each individual claim is in its own paragraph. Appropriate correction is required.

10. Claim 1 is objected to because of the following informalities: The word 'Interfacing' is misspelled in part c of the claim, which states "Interafacing between..." Appropriate correction is required. For purposes of examination this will be interpreted to read "Interfacing between..."

11. Claim 5 is objected to because of the following informalities: The word 'for' is misspelled in the claim, which states "to the data in the repository ofr loading..." Appropriate correction is required. For purposes of examination this will be interpreted to read "in the repository for loading..."

12. Claim 6 is objected to because of the following informalities: the word 'knowledge' is misspelled in the claim, which states "knowleged base..." Appropriate correction is required. For purposes of examination this will be interpreted to read "knowledge base..."

13. Claims 4, 13 and 22 objected to because of the following informalities: The claim does not end with a '.' (period). Appropriate correction is required.

Claim Rejections - 35 USC § 112

14. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

15. Claims 20-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

16. Claims 20-27 recites the limitation "the base component." There is insufficient antecedent basis for this limitation in the claim. For purposes of examination this will be interpreted to read "the object."

Claim Rejections - 35 USC § 102

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

18. Claims 1-6, 10-15 and 19-24 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,480,856 to McDonald et al.

Regarding claim 1:

McDonald et al teach:

- in an object oriented computer system, a method of generating software components ("the steps entailed in creating a new object..." in col. 10 line 48)
- loading a structure of an object to a memory means (Note Figure 11 and the corresponding section of the disclosure)
- loading the file structure data by a file component loader (Note Figure 18, step 318 and the corresponding section of the disclosure. A loader would inherently be called to load the shape table for searching.)
- Interfacing between the structure of an object and the file structure data by an interface object (Note Figure 18, step 318 and the corresponding section of the disclosure. An

interface object would inherently be called so that the memory is able to interact with the shape table.)

Regarding claim 2:

The rejection of claim 1 is incorporated, and further, McDonald et al teach an interface object using the methods as claimed (Note Figure 18, if a shape is determined to be new, the shape table is initialized with the new shape object. Further, once the shape is initialized into the shape table, it can be accessed with get or set methods, as shown in Figure 21, item 386.)

Regarding claim 3:

The rejection of claim 1 is incorporated, and further, McDonald et al teach a plurality of pointers as claimed (Note Figure 15 and the corresponding sections of the disclosure)

Regarding claim 4:

The rejection of claim 1 is incorporated, and further, McDonald et al teach loading the file structure data by a file component loader as claimed (Note Figure 15 and the corresponding sections of the disclosure. The system must access the shape table, which represents a knowledge base, as it develops a greater listing of shapes for each new shape that the system encounters. Further, the property lists describe the functionality of the components or objects.)

Regarding claim 5:

The rejection of claim 1 is incorporated, and further, McDonald et al teach interfacing between the structure of an object and the file structure data as claimed (Note Figure 15 and the corresponding

sections of the disclosure. The shape table contains pointers to property lists, which in turn allow access to get/set methods for each component, thereby linking the structures of the objects via an interface object.)

Regarding claim 6:

The rejection of claim 1 is incorporated, and further, McDonald et al teach maintaining a knowledge base as claimed (Note Figure 8 and the corresponding section of the disclosure. The shape table is updated with information as each new shape is encountered.)

Regarding claims 10-15 and 19-24:

Claims 10-15 and 19-24 recite a device and a computer program product for performing the methods as disclosed in claims 1-6, respectively, and are rejected for the reasons set forth in connection with claims 1-6, respectively.

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 7, 16 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,480,856 to McDonald et al, in view of U.S. Patent 5,940,820 to Kagiwada.

Regarding claim 7:

The rejection of claim 1 is incorporated, and further, McDonald et al disclose a structure containing a plurality of pointers to complex functionalities and complex data storage buffers (Note Figure 12 and the corresponding sections of the disclosure). McDonald et al do not disclose buffers including metadata models. Kagiwada discloses in an analogous object-oriented system a metadata model ("held in the management unit itself, formally as link meta-information..." in col. 6 lines 63-64). It would have been obvious to someone of ordinary skill in the art at the time the invention was made to use the metadata-based system of Kagiwada with the software object modeling system of McDonald et al, as the metadata model can be used to easily describe the interaction of the system, enabling end users to easily realize the navigation among the objects, as stated in col. 1 lines 37-40 of Kagiwada.

Regarding claims 16 and 25:

Claims 16 and 25 recite a device and a computer program product for performing the method as disclosed in claim 7, and are rejected for the reasons set forth in connection with claim 7.

21. Claims 8, 17 and 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,480,856 to McDonald et al, in view of U.S. Patent 5,305,389 to Palmer.

Regarding claim 8:

The rejection of claim 1 is incorporated, and further, McDonald et al disclose a structure containing a plurality of pointers to complex functionalities and complex data storage buffers (Note Figure 12 and the corresponding sections of the disclosure). McDonald et al do not disclose buffers including

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pattern recognition components. Palmer discloses in an analogous object based system pattern recognition components (“the pattern recognition component...” in col. 2 line 27). It would have been obvious to someone of ordinary skill in the art at the time the invention was made to use the pattern recognition system of Palmer with the software object modeling system of McDonald et al, as the pattern recognition would enable predictive memory caching, thereby increasing the performance of memory accesses in the system disclosed by McDonald et al.

Regarding claims 17 and 26:

Claims 17 and 26 recite a device and a computer program product for performing the method as disclosed in claim 8, and are rejected for the reasons set forth in connection with claim 8.

22. Claims 9, 18 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,480,856 to McDonald et al, in view of U.S. Patent 6,421,690 to Kirk, III.

Regarding claim 9:

McDonald et al teach:

- in an object oriented computer system, a method of generating software components (“the steps entailed in creating a new object...” in col. 10 line 48)
- allocating an object in a memory means (Note Figure 11 and the corresponding section of the disclosure. Memory would inherently be allocated for a memory structure to be created.)
- copying the structure to a memory means (Note Figure 11 and the corresponding section of the disclosure)

- placing the records of complex data, complex functionality and knowledge base in the complex data storage buffer (Note Figures 14 and 15 and the corresponding sections of the disclosure. These structures are inherently stored in storage locations.)
- creating complex data at instantiation moment (Note Figure 12 and the corresponding section of the disclosure. To create the memory structure, the object would be instantiated with the values and properties which are listed in the memory structure.)
- modifying complex data (Note Figure 16, item 290 and the corresponding section of the disclosure. The object includes get/set methods to modify data.)
- deciding whether to write complex data, complex functionality and knowledge base to a memory means (Note Figure 18, item 318 and the corresponding section of the disclosure. A determination is made whether to write new shape information to the shape table.)
- exposing the structures and functionality through an interface that performs all specific tasks of the object itself and administrative tasks related to the structure (Note figure 16, item 290 and the corresponding section of the disclosure. A list of references to methods for an object is shown, these methods allow exposure to get/set methods which allow tasks to be performed on an object.)

McDonald et al disclose where all structures can be used like memory structures (Note Figure 15, all data structures are in memory.) McDonald et al do not disclose all memory allocations and swapping being managed by the object itself. Kirk, III teach in an analogous object-oriented system objects which provide automatic memory management (“a Generic Memory Management System...which defines relational schemes for memory pointers in object-based computer systems.” in col. 2, lines 44-47). It would have been obvious to someone of ordinary skill in the art at the time the invention was made to use the automatic memory management system of Kirk, III with the software object

modeling system of McDonald et al, as this would help reduce the occurrences of null references (dangling pointers) to objects which may be caused by improper memory management, as shown in col. 1 line 24 to col. 2 line 41 of Kirk, III.

Regarding claim 18:

Claim 18 recites a device for performing the method as disclosed in claim 9, and is rejected for the reasons set forth in connection with claim 9.

Regarding claim 27:

The rejection of claim 19 is incorporated, and further, note the rejection regarding claim 9.

Conclusion

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trent J Roche whose telephone number is (703)305-4627. The examiner can normally be reached on Monday-Friday, 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703)305-9662. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

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Trent J Roche
Examiner
Art Unit 2124

TJR

Kakali Chaki
**KAKALI CHAKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100**